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Spectroscopy and microchip laser operation of Tm, Ho:KYW crystals with different Ho concentrations

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Abstract

© 2018 Astro Ltd. The spectroscopic properties of Tm, Ho:KYW crystals with different Ho concentrations were investigated. The diode-pumped microchip laser operation of Tm (5 at.%), Ho (0.5 at.%):KYW and Tm (5 at.%), Ho (1 at.%):KYW was demonstrated. The highest, to our knowledge, output power of 480 mW with slope efficiency of 31% for CW Tm (5 at.%), Ho (0.5 at.%):KYW microchip laser was obtained.

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Keywords

absorption, double tungstates, holmium, microchip laser, thulium, up-conversion

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